

WHAT IS CLAIMED IS:

5041 > 1. An alkali-free aluminoborosilicate glass having a coefficient of thermal expansion $\alpha_{20/300}$ of between $2.8 \times 10^{-6}/K$ and $3.8 \times 10^{-6}/K$, which has the following composition (in % by weight, based on oxide):

SiO ₂	> 58 - 65
B ₂ O ₃	> 6 - 11.5
Al ₂ O ₃	> 14 - 25
MgO	4 - 8
CaO	0 - 8
SrO	2.6 - < 4
BaO	0 - < 0.5
with SrO + BaO	> 3
ZnO	0 - 2.

2. An alkali-free aluminoborosilicate glass having a coefficient of thermal expansion $\alpha_{20/300}$ of between $2.8 \times 10^{-6}/K$ and $3.4 \times 10^{-6}/K$, which has the following composition (in % by weight, based on oxide):

SiO ₂	> 58 - 65
B ₂ O ₃	> 6 - 11.5
Al ₂ O ₃	> 14 - 25
MgO	4 - 8
CaO	0 - < 2
SrO	> 0.5 - < 4
BaO	0 - < 0.5
ZnO	0 - 2.

3. An alkali-free aluminoborosilicate glass having a coefficient of thermal expansion $\alpha_{20/300}$ of between $2.8 \times 10^{-6}/K$ and $3.6 \times 10^{-6}/K$, which has the following composition (in % by weight, based on oxide):

SiO ₂	> 58 - 65
------------------	-----------

B_2O_3	> 6 - 11.5
Al_2O_3	> 21 - 25
MgO	4 - 8
CaO	0 - 8
SrO	2.6 - < 8
BaO	0 - < 0.5
with SrO + BaO	> 3
ZnO	0 - 2.

4. The aluminoborosilicate glass according to Claim 1 or 2, characterized in that it comprises more than 18% by weight, preferably at least 20.5% by weight, particularly preferably at least 21% by weight, of Al_2O_3 .

5. The aluminoborosilicate glass according to at least one of Claims 1 to 4, characterized in that the glass comprises more than 8% by weight of B_2O_3 .

6. The aluminoborosilicate glass according to at least one of Claims 1 to 5, characterized in that it additionally comprises:

ZrO_2	0 - 2
TiO_2	0 - 2
with $ZrO_2 + TiO_2$	0 - 2
As_2O_3	0 - 1.5
Sb_2O_3	0 - 1.5
SnO_2	0 - 1.5
CeO_2	0 - 1.5
Cl^-	0 - 1.5
F^-	0 - 1.5
SO_4^{2-}	0 - 1.5
with $As_2O_3 + Sb_2O_3 + SnO_2 + CeO_2$ + $Cl^- + F^- + SO_4^{2-}$	0 - 1.5.

7. The aluminoborosilicate glass according to at least one

of Claims 1 to 6, characterized in that the glass is free of arsenic oxide and antimony oxide, apart from unavoidable impurities, and that it can be produced in a float plant.

8. The aluminoborosilicate glass according to at least one of Claims 1 to 7, which has a coefficient of thermal expansion $\alpha_{20/300}$ of between $2.8 \times 10^{-6}/K$ and $3.6 \times 10^{-6}/K$, a glass transition temperature T_g of $> 700^\circ C$ and a density ρ of $< 2.600 \text{ g/cm}^3$.

9. Use of the aluminoborosilicate glass according to at least one of Claims 1 to 8 as substrate glass in display technology.

10. Use of the aluminoborosilicate glass according to at least one of Claims 1 to 8 as substrate glass in thin-film photovoltaics.

SECRET

 ~~$A \rightarrow A_2 \rightarrow B$~~
$$A \gg B_2 >$$

Ady